DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 19, 2010 has been entered.

Applicant's reply dated April 19, 2010 in reply to the Office Action dated October 14, 2009 is acknowledged. Claims 40-43 and 47-51 and the polynucleotide of SEQ ID NO: 26 encoding the polypeptide of SEQ ID NO: 54 are present for examination.

All objections and rejections not reiterated in the instant Office Action are hereby withdrawn.

Withdrawn -Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 40-43, 47-51 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application

was filed, had possession of the claimed invention. This rejection is withdrawn following applicants claim amendments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 47-51 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,071,892 (Lawlor et al, June 6, 2000). Lawlor et al teach the polynucleotide sequence of *E. coli* tyrosyl tRNA synthetase (SEQ ID NO: 1). This sequence is anticipated to hybridize under the highly stringent conditions described on pages 86 and 87 of the specification to the polynucleotide sequence of a polynucleotide comprising a nucleotide sequence as set forth in any one of SEQ ID NO: 26 or complementary polynucleotide sequence thereof or to a polynucleotide encoding a polypeptide of SEQ ID NO: 54 because there are only a few nucleotide mismatches between these sequences and the polynucleotide sequence encoding the wild type *E. coli* Tyr tRNA synthetase of Lawlor et al. The description of the term highly stringent on page 86-87 would clearly allow the

wild type *E. coli* sequence to hybridize to the *E. coli* Tyr-RS variant of SEQ ID NO: 26 absence evidence to the contrary.

Claims 47-51 are rejected under 35 U.S.C. 102(e) as being anticipated by US 7393670 (Kiga et al) with a priority filing date of January 11, 2002. Kiga et al teach vectors comprising polynucleotide sequences encoding wild type or variants of *E. coli* tyrosyl tRNA synthetase (see example 1-3). These polynucleotide sequences encode polypeptides that show up to 97.6% similarity to the polynucleotides of SEQ ID NO: 26 (see SCORE). The polynucleotide comprised in these vectors (pET-YRS) and the variant polynucleotide sequences encoding altered amino acid at position 37 and/or position 195 thus are anticipated to hybridize with at least the polynucleotide sequences of SEQ ID NO: 26 or with polynucleotides that encode the polypeptide of SEQ ID NO: 54. Furthermore based on the definition of a highly stringent" hybridization and the level of sequence identity, Kiga et al's polynucleotide sequences encompassed in vector pET-YRS and the variants (that encode the Tyr-RS shown in table 1 of Kiga et al), are anticipated to hybridize with a signal to noise ratio that is at least 5X as high as that observed for hybridization of the probe to a totally unmatched target. Thus Kiga's sequences are clearly within the limitation of claims 47-51.

Claims 47-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Barker, et al The tyrosyl-tRNA synthetase from Escherichia coli: complete nucleotide sequence of the structural gene. FEBS Lett. 150, 419-423, 1982. Barker et al teach the

tyrosyl tRNA sequence of E. coli. Said polynucleotide sequence (accession number A01178) shows 97.6% sequence identity to polynucleotide encoding the polypeptide encoded by the polynucleotide of SEQ ID NO: 26. Thus Barker et al's tyrosyl-tRNA synthetase from *Escherichia coli* is anticipated to hybridize with the polynucleotide sequence of SEQ ID NO: 26 with a signal to noise ratio that is at least 5X as high as that observed for hybridization of the probe to a totally unmatched target. Therefore claims 47-51 are anticipated.

Maintained -Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 40-43, 47-51 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 52-54, 56-59, 62-

64 of copending Application No. 10/826,919. Although the conflicting claims are not identical, they are not patentably distinct from each other because the method used in application 10/826,919 requires the eukaryotic cells disclosed in the instant application thus rendering the claims in the instant application obvious. Furthermore application 10/826,919 discloses the same O-RS molecule (SEQ ID NO: 54) and species of unnatural amino acid comprising an alkynyl moieties (para-pargyloxy-phenylalanine) as the claims in the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants have agreed to provide a terminal disclaimer. This rejection will be maintained until this document is provided.

Conclusion: No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAGNEW H. GEBREYESUS whose telephone number is (571)272-2937. The examiner can normally be reached on 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MANJUNATH RAO can be reached on 571-272-0939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kagnew H Gebreyesus/
Acting Examiner of Art Unit 1656
July 12, 2010